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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of:

Hirofumi KUBOTA et al.

Patent No.: 6,836,306 B2

Issue Date: December 28, 2004

Title: TRANSFLECTIVE LIQUID CRYSTAL DISPLAY DEVICE

REQUEST FOR CERTIFICATE OF CORRECTION  
OF USPTO ERRORS UNDER RULE 322

Certificate

FEB 24 2005

of Correction

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Sir:

It is respectfully requested that a Certificate of Correction be issued in order to correct the errors made by the USPTO, as specified in the attached copy of the Certificate of Correction form (PTO-1050) which has been completed according to the Notice in 862 O.G. 2.

Respectfully submitted,

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February 11, 2005

Date  
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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,836,306 B2  
DATED : December 28, 2004  
INVENTOR(S) : Hirofumi KUBOTA et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Claim 27, line 59 (Column 19, about printed line 12),  
change "dr<sub>b</sub>" to --pr<sub>b</sub>--; and

Claim 27, line 70 (Column 19, about printed line 25),  
change "dr<sub>b</sub>" to --pr<sub>b</sub>--.

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16. (Original) The transfective liquid crystal display device according to claim 13, wherein the color filter layer is such that a wavelength of light to be transmitted through the color filter layer is changed by means of an external input.

17.-21. (Cancelled)

*allowed  
claim 17*

22. (Currently Amended) A transfective liquid crystal display device comprising:

a pair of substrates;

a liquid crystal layer sandwiched between the substrates;

pixel electrodes ~~disposed~~ located on a surface of one of the substrates facing the liquid crystal layer, each of the pixel electrodes ~~including~~ comprising an electrode for reflective display and an electrode for transmissive display;

a counter electrode ~~disposed~~ located on a surface of the other substrate facing the liquid crystal layer;

an alignment film covering the surface of each of the substrates facing the liquid crystal layer; and

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a reflective layer for selectively reflecting light of a specified wavelength, the reflective layer being stacked on the electrode for reflective display,

wherein a distance from the electrode for transmissive display to the other substrate is different from a distance from the electrode for reflective display to the other substrate;

wherein liquid crystal molecules at a surface of the electrode for reflective display are aligned in a same direction as liquid crystal molecules above the electrode for transmissive display that are in a same plane as the liquid crystal molecules above the electrode for reflective display, the plane being parallel to principal surfaces of the substrates; and

wherein a relation between  $dr_a$  and  $pr_a$  and  $dr_b$  and  $pr_b$  is expressed by the following equation:

$$\underline{dr_a / pr_a = dr_b / pr_b}$$

where  $dr_a$  is the distance of the liquid crystal molecules above the electrode for reflective display from the surface of the substrate where the molecules make contact and the pixel electrodes are not located,  $pr_a$  is the twist angle of the liquid crystal molecules,  $dr_b$  is the distance of the liquid

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crystal molecules above the electrode for transmissive display from the surface of the substrate where the molecules make contact and the pixel electrodes are not located, and  $\theta$  is the twist angle of the liquid crystal molecules.

23. (Original) The transflective liquid crystal display device according to claim 22, further comprising a light source for irradiating the liquid crystal layer with colored light on a time division basis through the electrode for transmissive display.

24. (Currently Amended) A transflective liquid crystal display device comprising:

a pair of substrates;

a liquid crystal layer sandwiched between the substrates;

pixel electrodes ~~disposed~~ located on a surface of one of the substrates facing the liquid crystal layer, each of the pixel electrodes ~~including~~ comprising an electrode for reflective display and an electrode for transmissive display;

a counter electrode ~~disposed~~ located on a surface of the other substrate facing the liquid crystal layer;